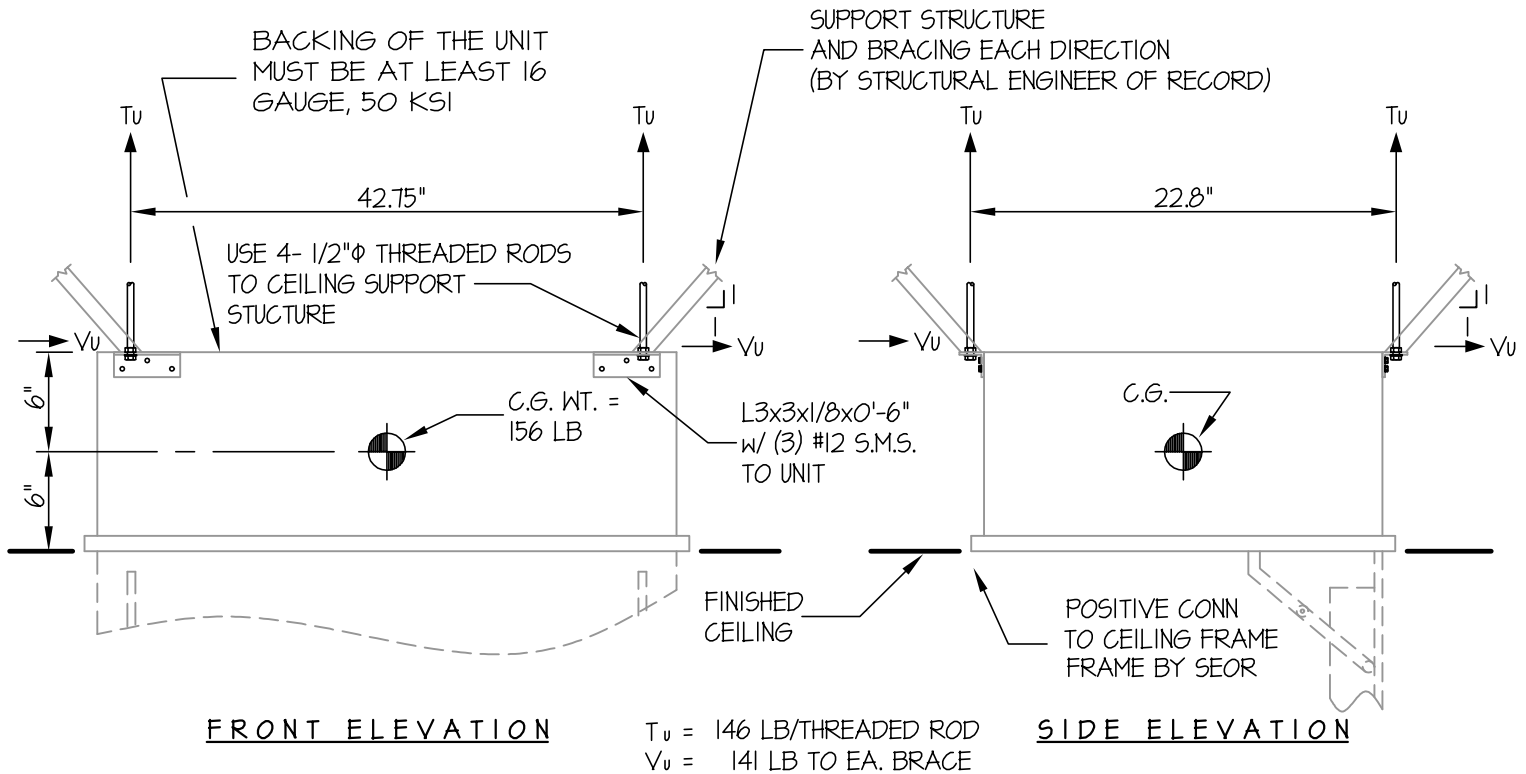


CHATSWORTH PRODUCTS, INC. CEILING MOUNTED ZONE ENCLOSURE 2 FT. X 4 FT.	DES. J. ROBERSON	SHEET 1
	JOB NO. 11-1131	OF 1 SHEET
	DATE 7/26/12	

SEISMIC ANCHORAGE

CEILING MOUNTED



LOADS: PER 2010 CALIFORNIA BUILDING CODE AND ASCE 7-05

(STRENGTH DESIGN IS USED) ($S_{ds} = 1.67$, $a_p = 2.5$, $I_p = 1.5$, $R_p = 2.5$, $z/h \leq 1.0$)

WEIGHT = 156 LB

HORIZONTAL FORCE (E_h) = $3.60W_p = 562 \text{ LB}$

VERTICAL FORCE (E_v) = $0.40W_p = 62 \text{ LB}$

#12 TEK SCRWS 16 GAGE, 50 KSI

$\phi_T = 328 \text{ LB/SCREW}$

$\phi_V = 840 \text{ LB/SCREW}$

BOLT FORCES:

TENSION (T)

$$T_u \text{ MAXIMUM} = \left[\frac{562\#(6'')}{2\text{BOLTS}(42.75'')} \times (0.3) \right] + \frac{562\#(6'')}{2\text{BOLTS}(22.8'')} + \frac{1.2(156\#) + 62\#}{4\text{BOLTS}} = 146 \text{ LB/SCREW (MAX)}$$

(HORIZ - SIDE TO SIDE) (HORIZ - FRONT TO BACK) (WEIGHT + E_v)

SHEAR (V)

$$V_u \text{ MAXIMUM} = \frac{562\#}{4\text{BOLTS}} = 141 \text{ LB/SCREW (MAX)} \text{ (PER AISC J3.7, LESS THAN 20\% STRESS)}$$

NOTE:

STRUCTURAL ENGINEER OF RECORD SHALL PROVIDE SUPPORT STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN.

